

**UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION**

COMMSCOPE TECHNOLOGIES LLC	)	
	)	
Plaintiff,	)	No. 3:16-cv-477
Counterclaim Defendant	)	
	)	
v.	)	
	)	
DALI WIRELESS, INC.	)	
Defendant.	)	
Counterclaim Plaintiff	)	
	)	
v.	)	
	)	
COMMSCOPE TECHNOLOGIES LLC	)	
and COMMSCOPE CONNECTIVITY	)	
LLC	)	
Counterclaim Defendant	)	

**COMMSCOPE'S MEMORANDUM IN SUPPORT OF ITS MOTION FOR  
JUDGMENT AS A MATTER OF LAW AND NEW TRIAL**

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The Court should grant judgment as a matter of law (JMOL) that the asserted claims of the '521 and '473 patents are invalid and not infringed.

### **Standard**

The Court may grant JMOL if a “reasonable jury” would “not have a legally sufficient evidentiary basis” to find otherwise. Fed. R. Civ. P. 50. Fifth Circuit law requires a jury verdict be supported by “substantial evidence.” Mirror Worlds, LLC v. Apple Inc., 692 F.3d 1351, 1357 (Fed. Cir. 2012) (interpreting Fifth Circuit law). The Court should view all the evidence and draws all “reasonable” inferences in the light most favorable to the verdict. On the other hand, “substantial evidence requires more than a mere scintilla, however, and we must review the record as a whole, taking into consideration evidence that both justifies and detracts from the jury’s decision.” Cordis Corp. v. Bos. Sci. Corp., 658 F.3d 1347, 1357 (Fed. Cir. 2011).

### **Argument**

#### **I. The Court should grant JMOL that Claim 1 of the '521 patent is invalid**

##### **A. “Bauder” anticipates Claim 1 of the '521 patent**

CommScope’s expert Dr. Wood showed that Bauder discloses every element of Claim 1, and Dali did not cross-examine CommScope’s expert on Bauder. (A347 at 97:21-105:17.)<sup>1</sup> Dali relied on rebuttal testimony from its expert asserting Bauder did not disclose one step in Claim 1, specifically, the step of “switching a controller off to disconnect signal representative...” (A369 at 53:21-54:4.) No reasonable jury could find Bauder does not disclose this step.

At trial, Dali’s expert abandoned the reasoning relied on at summary judgment. There, Dali told Your Honor that the feedback signal must remain connected during the operating phase to generate a “lookup table key.” (ECF 360 at 16.) Come trial, Dali never argued this theory. Dali argued Bauder does not disclose a “switch.” (A369 at 53:21-54:4.) Dali’s argument fails as a matter of law and was non-responsive to CommScope’s invalidity theory.

To review, Bauder discloses including a “training circuit” in a DPD system. (A445.) Dr. Wood explained that Bauder’s training circuit is a “controller.” (A348 at 102:24-103:14.) *Dali’s*

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<sup>1</sup> Citations to “A#” and “SA#” are to the public (ECF 442) and sealed (ECF 444) appendix, respectively, filed with CommScope’s motion for permanent injunction.

*expert did not dispute this.* Bauder's training circuit is the element that connects the signal from the PA to the lookup table and further controls whether lookup tables are updated via the signal. (A445 at [0033], [0036]; A441 at Fig. 2.) Second, Bauder expressly teaches that the training circuit "operates only" during the training mode. (A445 at [0033].) Dr. Wood explained this means the circuit is switched to a non-operating state during the operating phase. (A348 at 103:15-23.) *Dali's expert did not dispute this.* Third, both the figures and text in Bauder teach that the signal from the PA is disconnected during the operating phase when the training circuit is switched to a non-operating state. Figure 2 shows that the feedback signal connects to the lookup table by passing through the training circuit 290 (blue):

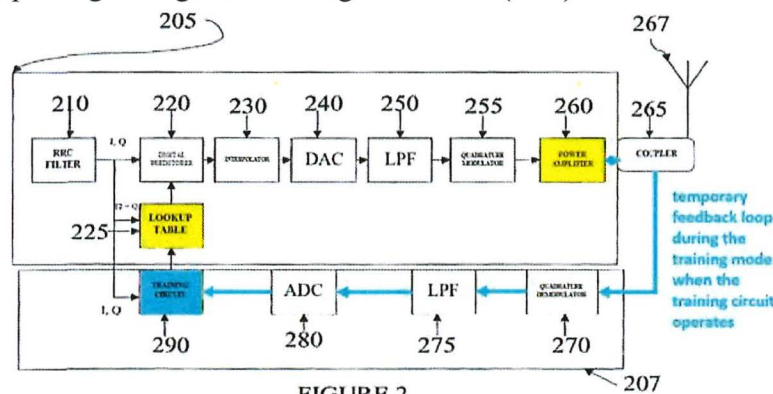


FIGURE 2

(A441.) In other words, it is *the operation* of the training circuit *that connects* the signal from the PA to the lookup table. Dr. Wood explained the reciprocal point: stopping the operation of the training circuit (which Bauder teaches) will disconnect the feedback signal from the lookup table. Dr. Wood explained that "no signals pass through" the training circuit when it is switched to a non-operating state. (A348 at 103:18-104:2.) *Dali's expert did not dispute this.* The arrows in Figure 2 show the signal from the PA necessarily will be disconnected from the lookup table when no signals pass through the training circuit.

The text of Bauder confirms the feedback signal is disconnected during the operating phase when the training circuit is in a non-operating state. Bauder emphasizes that the transmit chain works "alone, separate from" the receive chain during its normal transmission mode:

In a "normal transmission" mode the transmit train 205 *works alone, separate* from the receive chain 207. . .

During a "training" mode of operation, *however*, (to be described in more detail below) for the predistorter 220, the transmit chain 205 and the receive chain 207 *cooperate through the use of the coupler 265 to form a loop* through the receive train 207, and the antenna 267 is disconnected from the transmit chain 205.

(A444-45.) The description "alone, separate from" during normal transmission mode cannot be more clear, and speaks directly to whether the feedback signal is connected or disconnected. The feedback signal only connects in the training mode when the two parts of the system cooperate to form a loop (blue at right):

(A441.) By contrast, when the two parts work "alone, separate from" each other in the operating phase, the feedback loop is broken. The simple, undeniable point that should not be lost is this: when two things are "alone, separate from" each

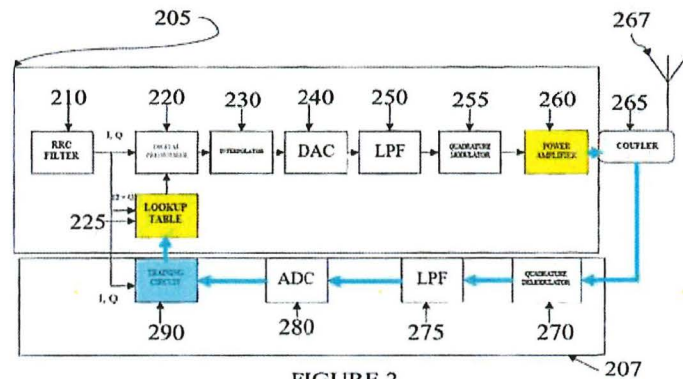


FIGURE 2

other, they are disconnected. Therefore, Bauder contains an express teaching that the feedback signal is disconnected during the operating phase when the training circuit is switched to a non-operating state. In addition, looking at Figure 2, it is physically impossible for the feedback signal to connect without the training circuit.

Still further, Dr. Wood explained that it is fundamental to Bauder's disclosure that the feedback signal from the power amplifier must be disconnected during the operating phase when the training circuit stops operating. Dr. Wood explained that the operating phase in Bauder is making a telephone call. (A347-48 at 100:18-101:15.) There are two sides to a phone call, which is why phones need a transmit chain (to transmit the caller's voice) and receive chain (to receive the voice from the other phone). (A347 at 99:12-100:7.) Although the receive chain can be temporarily used to connect the feedback signal from the PA when the system is training instead of making a call, during the operating phase during a call, the receive chain must be used to receive the other half of the phone call. (A347-48 at 99:12-101:15.) Dr. Wood explained that it would be impossible that the signal from the power amplifier would still be connected during the normal transmission mode—in this mode, the receive chain is carrying a different signal (the



signal received from the antenna). (A348 at 101:3-15.) *Dali's expert did not dispute this.*

The Court should grant judgment as a matter of law that Bauder anticipates Claim 1. The text and figures in Bauder teach the one disputed step, and the substance of Dr. Wood's analysis was undisputed. Imperium IP Holdings (Cayman), Ltd. v. Samsung Elecs. Co., 757 F. App'x 974, 978 (Fed. Cir. 2019) (holding JMOL of anticipation should have been granted where the other side "did not dispute the substance" of defendant's expert testimony). Dali did not dispute:

(1) Bauder's training circuit is a "controller."

(2) Bauder teaches this controller is switched to a "non-operating state" during the normal transmission mode

(3) When Bauder's controller is switched to a non-operating state during the normal transmission mode, no signal passes through it. This means the feedback signal is necessarily disconnected from the lookup table, and it would be *physically impossible* for the signal from the PA to remain connected.

(See A369-70 at 53:21-54:4.) Dr. Wood's analysis was not cross-examined or impeached.

Dali's expert did not provide any substantial rebuttal evidence, but merely distinguished Bauder because it does not disclose a "switch" or structure equivalent to a switch:

Q. [...] And could you sort of summarize the nature of your disagreement with Dr. Wood?

A Sure. He spent a little time on this. And the main feature here is on the left-hand side. *There is no switch.* There is no means<sup>2</sup> to disconnect that signal of the power amplifier in the feedback path, nor is there anything that, in my opinion, was equivalent to that.

(See A369-70 at 53:21-54:4.) This is not substantial evidence for three reasons.

First, as a matter of law, prior art "cannot be distinguished on the ground that it lacks features that are not claim limitations." Melchior v. Hilite Int'l, Inc., 665 F. App'x 894, 899 (Fed. Cir. 2016) (holding JMOL of invalidity should have been granted). The Federal Circuit has repeatedly granted JMOL of anticipation where a party like Dali distinguishes the prior art based on a feature that is not actually recited in the claim.<sup>3</sup> The disputed claim limitation recites

<sup>2</sup> The reference to "means" and "equivalent" misstates the issue. The disputed element is not a "means-plus-function" element.

<sup>3</sup> ParkerVision, Inc. v. Qualcomm Inc., 621 F. App'x 1009, 1020 (Fed. Cir. 2015) (reversing denial of JMOL: "Because the generating limitation does not require that the baseband signal be created by discharging energy from a storage device, ParkerVision cannot rely on the absence of

a “controller.” There is no limitation in the claim that says the controller must be a switch.

Second, Dali’s expert testimony was entirely conclusory. MobileMedia Ideas LLC v. Apple Inc., 780 F.3d 1159, 1172 (Fed. Cir. 2015) (holding JMOL of invalidity should have been granted: “Conclusory statements by an expert, however, are insufficient to sustain a jury’s verdict.”). CommScope’s invalidity theory involved Bauder’s training circuit. But Dali’s expert glossed over and ignored the training circuit.

Another informative case is Krippelz v. Ford Motor Co., 667 F.3d 1261, 1267 (Fed. Cir. 2012). The jury found no anticipation, and the court denied JMOL based on the patentee’s expert testimony. Id. at 1268. The Federal Circuit disagreed “as a matter of law.” Id. In reversing, it explained that the expert’s testimony was conclusory because it did not address the full disclosure in the reference, including the “most natural interpretation” of the figures. Id.

That same reasoning applies here. Figure 2 in Bauder shows that the signal from the PA connects to the lookup table through the operation of the training circuit. (A441.) Reciprocally, as shown by the conceptual red “X,” the most natural interpretations of what happens when the training circuit stops operating is that

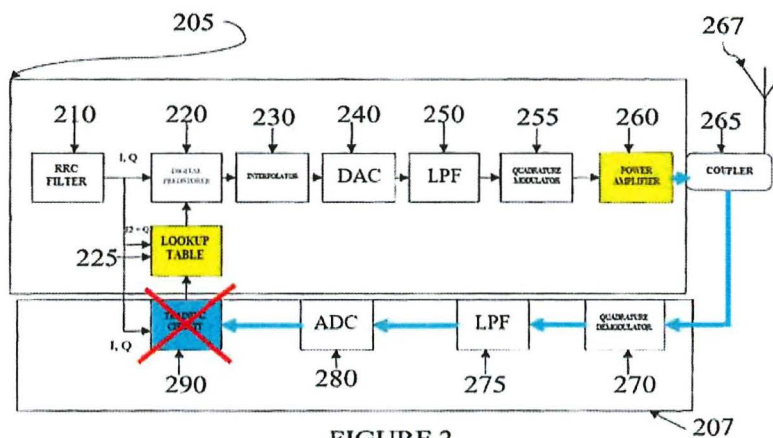


FIGURE 2

the signal from the PA is disconnected from the lookup table. But Dali’s expert did not

that feature from Weisskopf to defeat Qualcomm’s anticipation claim.”); MobileMedia Ideas LLC v. Apple Inc., 780 F.3d 1159, 1173 (Fed. Cir. 2015) (reversing denial of JMOL: “Claim 23, however, recites only a ‘communicating method for controlling a connecting state of a call,’ and includes no limitation that confines the claimed method to a cell phone or computer”); DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1252 (Fed. Cir. 2014) (reversing denial of JMOL: “Anticipation challenges under § 102 must focus only on the limitations actually recited in the claims”); see also Verdegaal Bros. v. Union Oil Co., 814 F.2d 628, 632-34 (Fed. Cir. 1987) (reversing denial of JMOL); Akamai Techs. v. Cable & Wireless Internet Servs., 344 F.3d 1186, 1194 (Fed. Cir. 2003) (reversing denial of JMOL).



meaningfully address this. He did not offer any explanation for how the signal could connect without the operation of the training circuit. (*See* A369-70 at 53:21-54:4.) He did not offer any other way to interpret the arrows in Figure 2. (*Id.*) He also did not address Bauder’s explicit teaching that the relevant chains work “alone, separate from” each other during the operating phase when the training circuit (290) is switched to a nonoperating state. (*Id.*)

Third, and most fundamentally, no reasonable jury could find that the feedback signal from the PA remains connected when Bauder’s training circuit stops operating in the normal transmission mode. It is physically impossible on three levels:

- (1) There is no feedback loop to connect the feedback signal during normal transmission mode. The two parts work “alone, separate from” each other.
- (2) The only disclosed connection of the feedback signal to the lookup table is through the operation of the training circuit.
- (3) The receive chain carries a different signal during the normal telephone operation mode (the signal from the other half of the phone call).

*Supra* at 2-4. Dali’s expert provided no explanation – *none* – on how it would be physically possible for the signal to remain connected. (*See* A369-70 at 53:21-54:4.)

**B. “Wright” anticipates Claim 1 of the ‘521 patent**

If the Court lets the jury verdict of infringement stand, the Court should grant JMOL that Wright anticipates Claim 1 under Dali’s theory of the claim for infringement. As a matter of law, claim terms “must be construed the same way for both invalidity and infringement.” 01 Communique Lab., Inc. v. Citrix Sys., 889 F.3d 735, 743 (Fed. Cir. 2018).

CommScope’s expert testified that Wright discloses each limitation of Claim 1 under Dali’s theory of the claim for infringement. (A349-50 at 108:23-112:4.) In response, Dali’s expert disputed whether Wright disclose the element of “switching a controller off...” (A370 at 58:8-18.) Dali’s expert did not dispute that Wright discloses every other element. (*Id.*) Thus, the issue for the Court reduces to whether there is substantial evidence to conclude Wright does not disclose “switching a controller off...” *under Dali’s theory of the claim for infringement.*

Dali’s theory for infringement was that the accused CommScope product “meets this limitation” because TI documents “show a switch.” Here is Dali’s expert’s testimony:

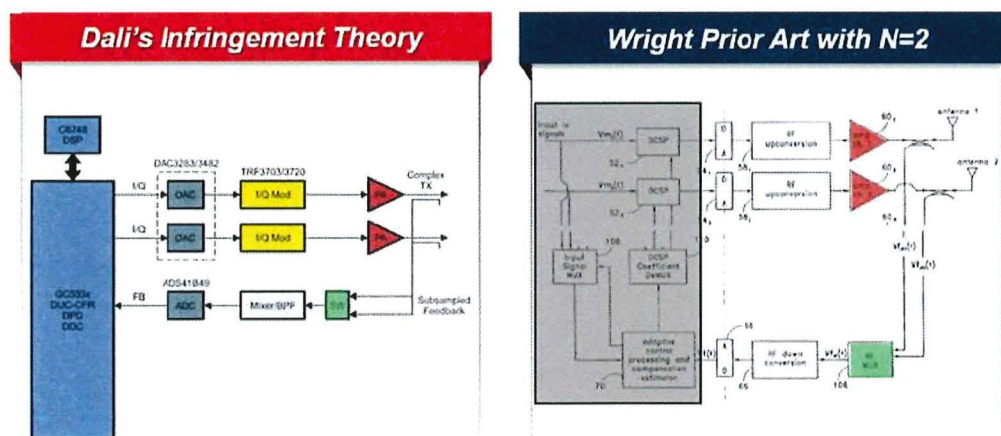


So the first step in this operating phase is to switch a controller off. And the Courts define that that means placing the controller in a non-operating state so that you disconnect the signal from the output of the PA. So in a sense you turn the feedback off. And the TI documents show a switch. This is the simplest schematic I could find. And I have circled it in red there. And various other schematics show that switch as well. So it meets this limitation.

(A282 at 61:4-12.) He circled the switch—and nothing else—in the TI document. (*Id.*)

For invalidity, CommScope's expert showed that Wright discloses the same feature that Dali said "meets this limitation" for infringement. CommScope's expert pointed to Figure 33 of Wright. (A350 at 109:8-21; A491.) Figure 33 discloses a feature called "RF MUX" for selecting between feedback from different power amplifier. (A350 at 110:7-111:25; A491.) Dr. Wood explained that an "RF MUX" is a "multi-way selector switch." (A350 at 110:7-16.) *Dali's expert did not dispute this.* Wright discloses the "RF MUX" works with any number "N" of PAs. (A350 at 111:13-15.) For N=2, Dr. Wood explained that Wright's RF MUX is a "two-way switch." (A350 at 111:13-25.) *Dali's expert did not dispute this.*

Dr. Wood explained that Wright's two-way switch operates the same as the two-way switch Dr. Kenney testified "meets this limitation" for infringement. (A350 at 110:17-112:4.) Dr. Wood explained both "select from a number of inputs to send the output of the power amplifier to the feedback path for adaption." (A350 at 111:7-9, A534-35 at 44:54-45:17.) *Dali's expert did not dispute this.* Dr. Wood showed a side-by-side comparison (see green box):



(A350 at 110:17-112:4; compare A491 with A559.)

As a matter of law, no reasonable jury could conclude Wright does not teach the "switching a controller off..." limitation under Dali's interpretation of the claim because Wright

discloses the *same feature* Dali said “meets this limitation” for infringement. The rule is: “if a product feature is found to meet a limitation when assessing infringement, the same feature found in the prior art *must* also meet that limitation for the purposes of assessing anticipation.” Accentra Inc. v. Staples, Inc., No. CV 07-5862 ABC (RZx), 2013 U.S. Dist. LEXIS 200213, at \*24-25 (C.D. Cal. June 5, 2013) (emphasis added); accord Dow Chem. Co. v. Astro-Valcour, Inc., 267 F.3d 1334, 1339-40 (Fed. Cir. 2001) (“[T]hat which would literally infringe if later in time anticipates if earlier”).

Dali’s expert did not provide any substantial evidence that Wright’s RF MUX is not the same feature Dali’s expert testified meets this limitation for infringement:

Q And so did you guys have a disagreement about this as well?

A We did. And Wright does disclose a multiplexor which is like a multi-pole switch. The fact is that the switch also has to have a controller, and you have to put that controller into a non-operating state. That's not -- That was not disclosed in Wright.

(A370 at 58:8-18.) Dali’s expert actually confirmed CommScope’s point that the RF MUX is a switch and then simply (a) repeated the claim element and (b) said “that was not disclosed.”

First, Dali’s expert testimony stating “that was not disclosed” is not substantial evidence as it is entirely conclusory. MobileMedia, 780 F.3d at 1172 (“Conclusory statements by an expert, however, are insufficient to sustain a jury's verdict.”).

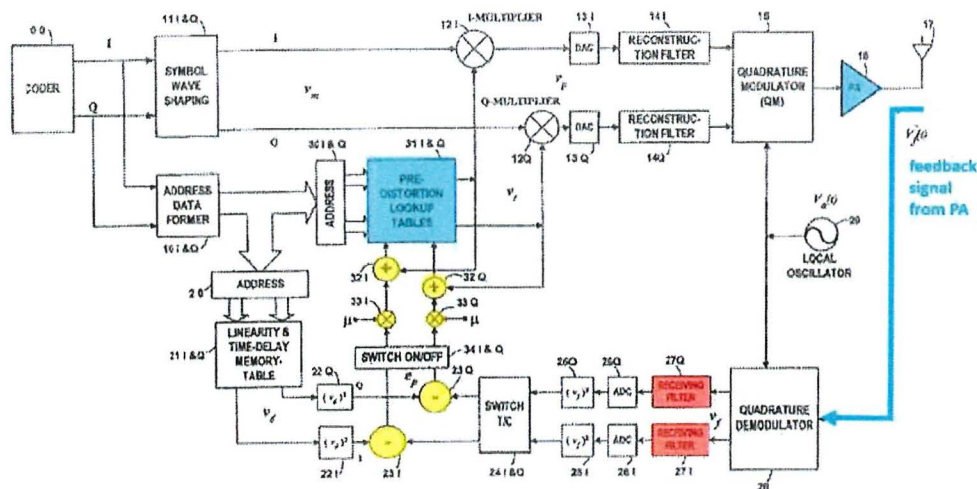
Second, Dali’s expert testimony does not address the relevant issue. To be clear, CommScope agrees that a toggle switch does not meet the more specific limitation about a “controller” being in a “nonoperating state” – that is CommScope’s point below for why JMOL of non-infringement should be granted (i.e., Dali’s position on Wright proves CommScope’s point as to non-infringement). But the issue here is *consistency under Dali’s infringement theory*. Dali’s infringement theory asserted a switch does meet this claim element. That is the feature Dali called out and circled. Dali’s expert did not make a more specific showing of a controller being switched to a non-operating state other than to point to the switch. Dali cannot parse the claim more narrowly for invalidity than infringement. The Federal Circuit is emphatic: “A patent may not, like a nose of wax, be twisted one way to avoid anticipation and another to find

infringement.” Amazon.com, Inc. v. Barnesandnoble.com, Inc., 239 F.3d 1343, 1351 (Fed. Cir. 2001). The point here is simple: Wright discloses the same switch feature Dali circled and said meets this element for infringement. Dali’s expert did not explain any difference between the RF MUX in Wright (when  $N=2$ ) and the switch he circled for infringement. (A370 at 58:8-18.)

### C. “Khan” anticipates Claim 1 of the ‘521 patent

CommScope’s expert showed that Khan disclosed every element of Claim 1. (A349 at 105:18-108:19.) Dali did not cross-examine CommScope’s expert on Khan, but rather relied on its expert’s rebuttal testimony. Dali’s expert’s first contention was that Khan does not disclose the “establishing”<sup>4</sup> step of the training phase. (A368 at 50:14-51:2.) This is the step in which the values that will be used to correct for the distortion are calculated (“established”), so they can be stored in a lookup table for use during the operating phase. (A914.)

No reasonable jury could conclude that Khan does not disclose the “establishing” step. Khan’s has an express disclosure that mirrors the disclosure in the ‘521 patent. In the ‘521 patent, the “pre-computed distortion contributions” are complex gain values (A914, A920 at 7:39-42), which are established through mathematical operations (see yellow). Fig. 3 shows this process is “based on pre-compensation training feedback signals representative of output of the power amplifier” in that the process starts with the feedback signal from the PA (see blue):



<sup>4</sup> The full step recites: “establishing pre-computed distortion contributions based on pre-compensation training feedback signals representative of output of the power amplifier.”



(A914.) Relevant to the issue discussed below, the '521 patent does not exclude filtering from the establishing step. The establishing process in the preferred embodiment explicitly includes the signal passing through two "filter" boxes (see red above).

Khan likewise teaches that "pre-computed distortion contributions" are complex gain values that are established through mathematical operations. (A551 at Fig. 8.) Like the '521 patent, Khan shows this process is "based on pre-compensation training feedback signals representative of output of the power amplifier" in that the process starts with the feedback signal from the PA (see blue):

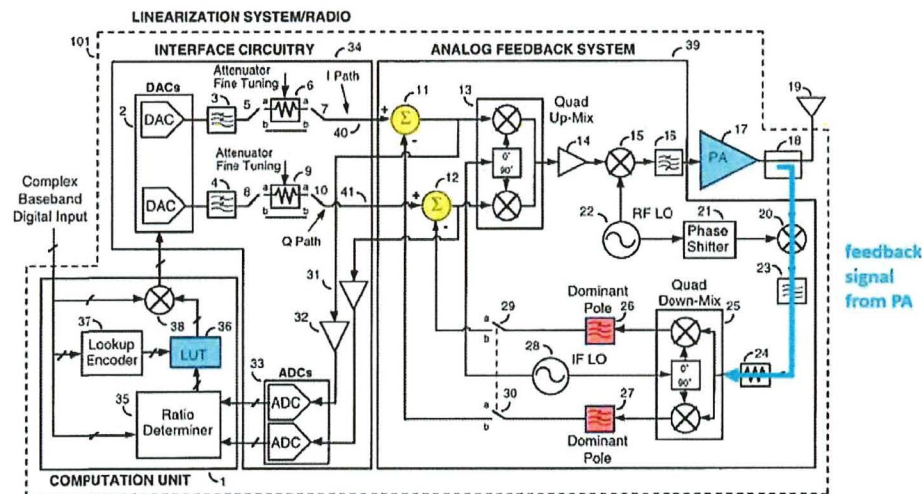


FIG. 1

(A547 at Fig. 1.) Khan expressly states the "feedback signal" is "create[d]" from the "PA output." (A552 at 2:53-55.) Like the '521 patent, Khan shows this process includes the signal passing through two filter boxes (see red).

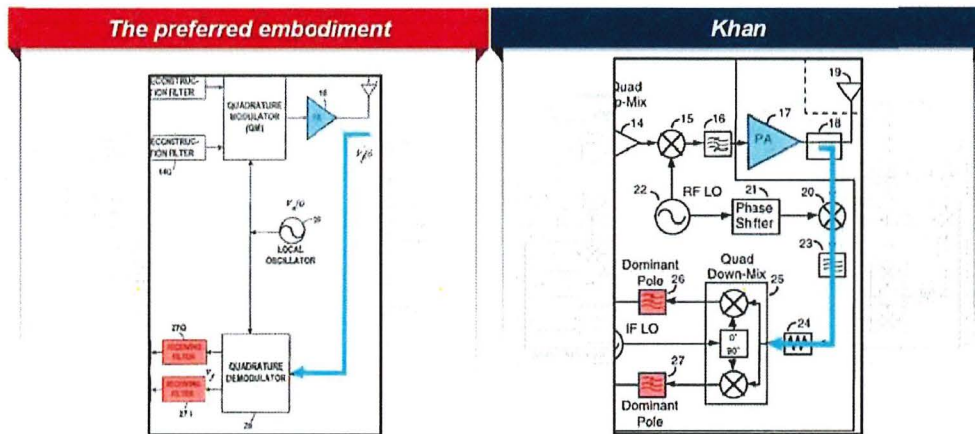
Dali's rebuttal expert testimony is not substantial evidence because it is based on a legally incorrect understanding of the scope of Claim 1. Dali's expert said Khan does not meet this claim element because the feedback signal in Khan is filtered via "two boxes":

Q. Well, let's move on to the discussion of the references. So what's shown here?

A. This is from the Khan reference, and it's showing the invention of that patent. And the claim element that Dr. Wood and I disagree on is the "establishing pre-computed distortion contributions based on pre-compensation, feedback, training, feedback signals representative of the output of the power amplifier." That's one of the claim elements. And the two boxes that I've circled in red are what I dispute. I dispute that those boxes mean that these feedback signals are not

representative of the power amplifiers. In fact, they're filters that get rid of much of the power amplifier signal. So I don't consider this in any way representative of the output of the power amplifier.

(A368 at 50:14-51:2.) Dali never sought a construction of “representative” that excludes filtering, and the plain language of the element does not exclude filtering. Moreover, the correct understanding of the claim cannot exclude filtering because the ‘521 patent explicitly shows that the signal passes through two filter boxes in the preferred embodiment just like Khan:



(Compare A914 with A547.) It is incorrect to distinguish prior art based on an interpretation that would distinguish the preferred embodiment. Accent Packaging, Inc. v. Leggett & Platt, Inc., 707 F.3d 1318, 1326 (Fed. Cir. 2013) (“[A] claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.”).

Dali’s expert’s position is also incorrect because it implicitly assumes a requirement that is not in the claim. Specifically, his analysis assumes the claim requires the values be established *directly* based on a signal he considers representative.

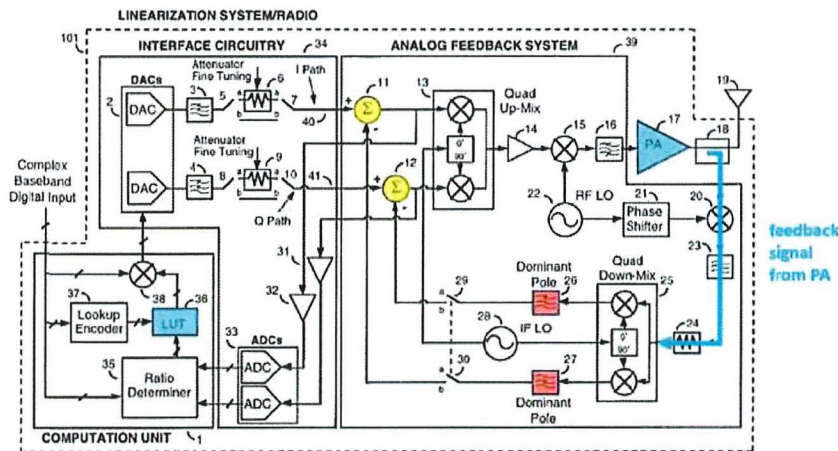


FIG. 1

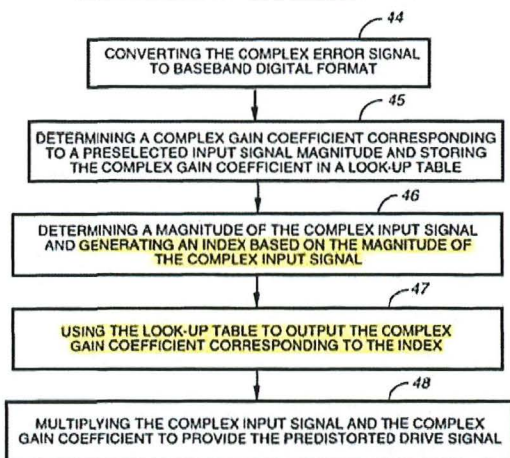


For context, even under Dali's theory about filtering, the blue signal before the filter would undeniably be representative of the output of the PA – it comes directly from the output of the PA. (A547 at Fig. 1; A552 at 2:53-55.) Khan's process of establishing values undeniably is at least *indirectly* based on the blue signal – the process starts with it. Dali's expert disregards this, which means he assumes that the claim requires the values be established *directly* based on the recited feedback signal. The claim does not say this. It is agnostic whether the values are established directly or indirectly based on the signal.

Dali's expert raised a second conclusory contention. Dali's expert testified that Khan did not disclose two steps of the operating phase: (a) “generating a digital lookup table key ...”, (b) “retrieving from the lookup table ...”

No reasonable jury could conclude the Khan does not disclose these steps because the figures and text in Khan both expressly disclose these steps:

#### Express teaching in Figure 8



#### Express teaching in specification

The computation unit (1), may be selected to include: A) a ratio determiner (35), coupled to the interface circuitry (34), and to receive the complex input signal, for determining a complex look-up table coefficient corresponding to a preselected power level; B) a lookup encoder (37), coupled to receive the complex input signal, for determining a magnitude of the complex input signal and generating an index based on the magnitude of the complex input signal and a preselected set of levels; C) a look-up table (36), coupled to the ratio determiner and the lookup encoder, for outputting the complex look-up table coefficient corresponding to the index; and D) a multiplier (38), coupled to receive the complex input signal and the complex look-up table coefficient, for multiplying the complex input signal and the complex look-up table coefficient to provide the predistorted drive signal. Where selected, the preselected set of levels is based on steps of the input signal magnitude.

(A551, A554 at 5:1-17, A547.) The step (46) of “generating an index...” in the flowchart directly corresponds to “generating a digital lookup table key.” In turn, the next step (47) in the flowchart directly corresponds to “retrieving from the lookup table” (using a table to “output” the value is the same “retrieving” from the table). The text expressly describes two components (“lookup encoder” and “look-up table”) for performing these steps.

Dali's expert testimony is not substantial evidence. His testimony was:



“generating a digital lookup table key ...”	“retrieving from the lookup table ...”
<p>Q. Okay. And did you also analyze this element and disagree with Dr. Khan about this one? I'm sorry; Dr. Wood.</p> <p>A. Yes. I -- We disagree -- I dispute that the element of "generating a digital look-up table based on the original value" is happening in Khan, and the reason is that this box called "<u>Ratio Determiner</u>" was <u>never really defined</u> in -- in Khan, and it's not a term of art that someone would know just by looking at the name of it.</p>	<p>Q. Did you also analyze this limitation?</p> <p>A. Yeah. It was the same issue, that the <u>look-up encoder was not properly defined in Khan</u> and, therefore, someone reading the patent wouldn't really know how to retrieve the value from the look-up table.</p>

(A368 at 51:19-52:9.) This testimony is flawed. Claim 1 is a method claim. The issue for anticipation of a method claim is not whether Khan “properly” or “really” defines its own structural components, but rather whether Khan discloses the claimed steps. Dali’s expert never actually says Khan does not disclose the claimed steps. Khan plainly does, and an express teaching trumps an expert’s opinion. Krippelz v. Ford Motor Co., 667 F.3d 1261, 1269 (Fed. Cir. 2012) (holding JMOL of anticipation should have been granted).<sup>5</sup>

Dali may cast its expert testimony as disputing whether Khan’s disclosure is “enabling.” There are several problems with this. First, Dali’s expert did not clearly say this. Second, enablement is a question of law for the Court, not the jury. 3M v. Chemque, Inc., 303 F.3d 1294, 1301 (Fed. Cir. 2002). Dali never asked the Court to find Khan disclosure is not enabling and did not request a special interrogatory to the jury on this issue. Third, Khan’s disclosure is presumptively enabling, and Dali’s expert certainly did not provide substantial evidence from which the Court could determine Khan is not enabling. To be clear, the burden would be on Dali to persuade Your Honor that Khan is not enabling. Amgen Inc. v. Hoechst Marion Roussel, 314 F.3d 1313, 1355 (Fed. Cir. 2003) (“Therefore, it was [patent owner] who bore the burden of proving the nonenablement of Sugimoto before the district court. [Defendant] did not bear a

<sup>5</sup> Homeland Housewares, LLC v. Whirlpool Corp., 865 F.3d 1372, 1378 (Fed. Cir. 2017) (“[W]e must disregard the testimony of an expert that is plainly inconsistent with the record”); Eriasson Inc. v. Intellectual Ventures I, LLC, 890 F.3d 1336, 1346 (Fed. Cir. 2018) (“To contradict a reference, an unsupported opinion is not substantial evidence.”); NantKwest, Inc. v. Lee, 686 F. App’x 864, 874 (Fed. Cir. 2017) (“Miller’s reading of the prior art is contradicted by the art itself. Miller’s testimony thus does not raise genuine issues of material fact.”)

burden of proving enablement.”). District courts presume prior art patent are enabling. *Id.* (“We hold that an accused infringer should be similarly entitled to have the district court presume the enablement ...”). To prove lack of enablement, Dali must prove the prior art reference does not “enable one skilled in the art to make the anticipating subject matter.” *PPG Indus. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1566 (Fed. Cir. 1996). Courts often analyze eight “Wand” factors to assess enablement and often focus on whether “undue experimentation” would be needed. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

Dali’s expert testimony is largely conclusory. He did not present a “Wand” factor analysis or analyze undue experimentation. He only states the conclusion that two features are not defined. He did not present an analysis for Your Honor of what information is supposedly missing from the definition of those features in Khan. He also did not explain why it would take undue experimentation to fill the gap of whatever information is supposedly missing.

Khan *does* enable both the claimed “generating” and “retrieving” step. Dali’s expert’s statement that the “ratio determiner” element is not properly defined is irrelevant because Khan expressly teaches it is the “lookup table encoder” that performs the step of generating an index. (A554 at 5:5-9 (“*a lookup encoder ... generating an index*”); A547 at Fig. 1.) Khan expressly teaches how the lookup encoder operates: (a) it “receive[s] the complex input signal” and (b) “generat[es] an index based on the magnitude of the complex input signal.” (A554 at 5:5-9; A547 at Fig. 1.) Khan further shows how the retrieving step is performed in Figs. 1 and 8 (by inputting the key and outputting the corresponding value, which is exactly what the ‘521 patent discloses).

## **II. The Court should grant JMOL that Claim 1 of the ‘521 patent is not infringed**

No reasonable jury could conclude CommScope’s products perform two elements.

### **A. “performing a training phase ... and performing an operating phase”**

Your Honor denied summary judgment based on the understanding that Dali’s expert opined that the accused product is “never” simultaneously in the training and operating phases:

“Dr. Kenney further opines that the power amplifier in CommScope’s product that is accused under Claim 1 is never simultaneously in both a training phase and



an operating phase at the same time, but is rather either in a training phase (while the other power amplifier is in the operating phase) or an operating phase (while the other power amplifier is in the training phase).”

(ECF 360 at 14.) Dali’s expert did not present this theory at trial.

The requirement of two separate phases is fundamental to Claim 1. It is a key difference between Claim 1 and Claim 10 in the ‘521 patent. Here is a comparison:

1. A <u>method</u> of operating a power amplifier, the method comprising:	10. A <u>method</u> of operating a power amplifier of a mobile handset, the method comprising:
initializing ...	powering on ...
<b>performing a <u>training phase</u> comprising:</b>	
<i>establishing pre-computed distortion ... storing the pre-computed distortion contributions in a lookup table</i>	<i>populating a lookup table with pre-computed distortion contributions;</i>
<b>performing an <u>operating phase</u> comprising:</b>	
<i>switching a controller off ... accepting an original value .... generating a digital lookup table ... retrieving from the lookup table.... distorting the original value .... wirelessly transmitting ....</i>	<i>switching off a controller ... accepting an original value .... generating a digital lookup table .... retrieving from the lookup table.... distorting the original value .... wirelessly transmitting ....</i>

While both claims require the sub-steps, Claim 1 adds a specific limitations that the sub-elements occur in separate phases.

No reasonable jury could conclude the accused product performs two separate phases. CommScope expert showed that the accused product works as follows: (1) it turns on the PA and starts operating, (2) *while* it operates, it *simultaneously* adapts the DPD values, and (3) it continues to adapt while it continues to *simultaneously* operate. (A345 at 89:22-90:7, A342-43 at 78:23-82:18.) As a matter of logic, there are not two separate phases in this sequence. There is no separate period of time when the adaption is occurring and the product is not simultaneously operating. (A343 at 82:13-18.) The alleged training phase cannot be performed *during* the alleged operating phase. That would not be two separate phases.

Dali’s expert did not present any substantial evidence that the accused product performs two separate phases. Dali’s expert provided the following conclusory testimony (left) that relied on CommScope’s interrogatory answer (right):

Dali's expert testimony	CommScope's interrogatory answer
A. Okay. So this is the training phase. And the training phase comprises, among other things, trying to figure out how much distortion is in the power amplifier, how curved is the line, if you recall the earlier example. <u>And essentially what is on the left [right] is a response from CommScope where the Dali attorneys asked them does it perform this step, and this is their response. And they're basically saying it does.</u> The CommScope product is designed to do DPD and you must train a DPD system. Beyond this, I reviewed lots of other CommScope and TI documents that describe how that training is done and how those computations are done, and I've spared you all the math in my slides. (A281 at 57:5-18.)	[T]he TMS320C6748 includes software that computes DPD coefficients correction terms, and the GC5330 and GC5337 includes buffers that capture input and feedback data. The TMS320C6748 reads data from the GC5330 GC5337 buffers and uses its software to compute the DPD coefficients correction terms. After computing new coefficients terms, the TMS320C6748 updates the registers in the GC5330 I GC5337. The GC5330 / GC5337 use the values in these registers for DPD. (SA7.)

This expert testimony from Dali is not substantial evidence because it merely adopts an interrogatory answer that does not address the relevant point. Nothing in the interrogatory answer says an alleged training phase is occurring in a separate period of time when the accused product is not simultaneously operating.

**B. “switching a controller off to disconnect signal...”**

The Court should grant JMOL for two reasons. First, Dali did not present any substantial evidence that a *controller itself* becomes non-operational during the training phase. Dali, instead, improperly conflated the signal and the controller, which are two different concepts.

Your Honor recognized that this step imposes a limitation on what happens to the controller itself when it is switched off. The Markman order explained: “The underlying dispute over this term is what switching ‘off’ does to the controller.” EF 97 at 25. The claim construction record emphasizes there is a fundamental difference between (a) switching the controller itself off and (B) switching the signal off. The parties briefed these positions:

CommScope (adopted by the Court)	Dali (later abandoned)
switching a controller to a non-operating state to disconnect signal representative of the output of the power amplifier	disconnecting, by a controller, a signal representative of the output of the power amplifier

ECF 79 at 10-11. Dali framed the dispute as whether “switched ... off” refers to the *signal* or the *controller*. (*Id.* at 10). Dali told the Court that these are “fundamentally” different things. (*Id.*) This is why Dali proposed the Court adopt the above construction where the claim merely



required (a) a controller (b) that disconnects the signal—without a separate requirement that the controller itself become “off.” CommScope pointed out Dali’s construction read a requirement out of the claim, and Dali dropped its theory at the hearing. The Court adopted CommScope construction.

This is the critical point: to prove infringement, it was not enough for Dali to merely (a) identify a controller and (b) explain that the controller switches off the signal for the power amplifier. Dali needed to submit evidence that the *controller itself* becomes non-operational.

Dali only submitted evidence that CommScope products have a controller and that the controller switches off a signal. Here is the testimony from Dali’s expert:

A. [...] So the first step in this operating phase is to switch a controller off. And the Courts define that that means placing the controller in a non-operating state so that you disconnect the signal from the output of the PA. So in a sense you turn the feedback off. And the TI documents show a switch. This is the simplest schematic I could find. And I have circled it in red there. And various other schematics show that switch as well. So it meets this limitation.

Q. And what did you identify as the switch?

A. Well, the actual switch circuit is a series of transistors that switch the actual RF signal on and off. And it is also associated with a logic that controls it that is on the FPGA, all those things being on the ALPACA board.

(A282 at 61:4-12.) Dali’s expert identified that the accused product has a “switch” (apparently the controller)<sup>6</sup> and that this controller switches the “RF *signal* on and off.” Dali’s expert did not provide any explanation why the *controller* itself becomes non-operational.

Dali’s invalidity position confirms that Dali omitted a critical point in its infringement case. Trying to avoid the Wright reference, Dali’s expert argued Wright’s toggle switch did not meet the claim because there is a further requirement about the controller itself:

Q. And so did you guys have a disagreement about this as well?

A. We did. And Wright does disclose a multiplexor which is like a multi-pole switch. The fact is that the switch also has to have a controller, and you have to put that controller into a non operating state. That's not -- That was not disclosed in Wright.

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<sup>6</sup> If Dali points to something more than the switch as the controller, that further confirms JMOL.

(A370 at 58:12-18.) But this is exactly the point Dali did not address in its infringement case. Dali cannot have it both ways. ParkerVision, Inc. v. Qualcomm Inc., 621 F. App'x 1009, 1014 (Fed. Cir. 2015) (holding JMOL of non-infringement where the patent holder expert's testimony was "internally inconsistent.")

By not submitting any evidence that the controller itself is switched to a non-operating state, Dali reverted to its prior claim construction position that the Court rejected. Dali may say its expert correctly quoted the Court's construction.<sup>7</sup> But the point is his actual analysis (where he identified a controller and explained it switched the signal off) corresponded to Dali's prior construction of "disconnecting, by a controller, a signal representative of the output of the power amplifier." An expert's analysis corresponding to an incorrect construction must be disregarded at JMOL. Cordis, 658 F.3d at 1357.

Second, no reasonable jury could conclude that the accused controller meets the Court's construction. CommScope's expert established two key points:

- (1) The switch is always operating to select and output a signal,
- (2) The structure controlling the switch is always operating to send control signals.

(A343-44 at 82:19-87:24.) As a matter of logic, a controller that is always operating cannot be in a "nonoperating state." The two are mutually exclusive.

Dali did not dispute CommScope's factual evidence, but rather made a counterargument about the scope of the claim. Dali told the jury that the Court's construction of "the power amplifier" meant that CommScope's evidence was irrelevant:

Q. And was one of the terms construed by the Court the "power amplifier"?

A. Yes, and it was construed to mean that you're always looking at the operation on one power amplifier. The fact that something may be happening with another power amplifier is irrelevant.

(A366 at 42:20-25; see also A366 at 43:19-44:11; A428-29 at 148:19-149:14; A354 at 127:10-128:10.) Dali conflated two different issues. There were two disputes at claim construction.

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<sup>7</sup> After stating the correct construction, Dali's expert re-stated the construction as: "So in a sense you turn the feedback off." (A282 at 61:4-8.) This returns to Dali's rejected theory that "switched ... off" refers to the feedback signal, not the controller itself.



The first was: must the steps of initializing, training, and operating involve the same PA? The construction of “the power amplifier” clarified that the steps cannot be split between different power amplifiers. (ECF 97 at 8.) The second dispute was: what does it mean to switch a “controller” “off”? The Court’s construction clarified that “off” meant a “non-operating state.” The Court’s construction of “the power amplifier” did not further define “nonoperating state.” The Court did not say certain operations of the alleged controller can be disregarded when there is a single controller for multiple PAs.

**III. The Court should grant JMOL that the asserted claims of the ‘473 patent are invalid**

Several weeks after trial, on August 12, 2019, the PTAB issued a final decision finding all challenged claims of Dali’s ‘473 patent (claims 6-21) to be unpatentable. (A661.) The PTAB found, e.g., claims 6, 11 and 21 are anticipated by and obvious in light of the Wu reference and that claims 9, 14 and 15 are obvious in light of the Wu and Sabat references.<sup>8</sup> In the event Dali continues to press its infringement case for these invalid claims, a judgment of invalidity and non-infringement should be entered for the following reasons.

**A. “Sabat” anticipates Claims 6, 9, 11, and 14**

The verdict of no anticipation by Sabat (A665-76) is not supported by substantial evidence. CommScope’s expert Dr. Acampora explained how the Sabat reference anticipated these claims. (A335 at 49:20-54:8.) Dali’s only response at trial was based on a limitation that is not in the claims and that Dali itself argued should not be read into the claims. At trial, Dali only disputed that element 6(e) was missing (A376 at 81) which reads:

wherein the host unit is configurable to transmit a digital representation of a first subset of the plurality of downlink signals to the first remote unit and a digital representation of a second subset of the plurality of downlink signals to the second remote unit, the second subset being different than the first subset;

(A623.) Dali argued that Sabat did not teach this limitation because when Sabat’s hub receives a signal the hub allegedly lacks the ability to “unpackage” it or “take all of its contents out one by

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<sup>8</sup> Having found the claims unpatentable based on Wu, the PTAB found it unnecessary to reach the additional bases for invalidity such as whether Sabat or Oh anticipated. (A659.)

one” or “create new subsets of the contents and distributing them individually.” (See A376 at 81:24-83:17 (emphases added).) Dali’s counsel repeated this point at closing argument, “[In Sabat] [y]ou can control which pieces of the -- of the end game you're sending the package to, but you're never unpacking the package.” (A426 at 137:3-14.)

Nowhere does the claim language require the ability to “unpackage” or “take out contents of a signal one by one” or “create new subsets of the contents and distribute them individually.” Further, Dali never asked for nor received this claim construction during Markman or any stage of this case. On the contrary, Dali opposed this claim construction. Based on Dali’s statements during IPR disclaiming coverage, CommScope sought supplemental claim construction (ECF 345 at 23-25; ECF 390 at 2), but Dali opposed this construction stating:

CommScope appears to argue that the claims should be limited to systems in which the host unit can extract and send individual resources, “such as the RF carriers, TDMA time slots or CDMA codes assigned to particular mobile devices,” to individual mobile devices. (Mot. at 25.) The claims require being able to route different subsets of downlink signals to different remote units. (See, e.g., Dkt. No. 346-2 at A470, 13:31-36). The claims do not require the extraction and routing of individual radio resources by themselves to specific remote unit. ... Dali never stated that the host unit must be capable of extracting individual radio resources and routing the individual radio resources to remote units.

(ECF 361 at 23-24 (emphases added).) The Court refused to find this limitation in the claim. (ECF 372 at 2-3.) Having argued that the Court should not construe the claim language to include this limitation, Dali cannot argue that the Sabat reference does not anticipate because it allegedly fails to disclose this limitation. Prior art cannot be distinguished on the ground that it lacks features that are not claim limitations. See supra at 4-5, n.2.

**B. “Sabat” in light of “Bauman” renders obvious Claims 15 and 21**

CommScope presented evidence that the remaining dependent claims 15 and 21 (re: “a daisy-chain configuration”) were obvious based on Sabat in light of Bauman (A678-690) which discusses at length and shows, e.g., in Fig. 2, daisy-chaining remote units. (A335-36 at 50:17-23, 54:9-18.) The only counter-argument asserted by Dali was that CommScope’s expert, Dr. Acampora “didn’t give any motivation to combine the Bauman reference with any other reference.” (A377 at 87:16-89:11.) No reasonable juror could find this to be true. Dr.

Acampora explained that it would be obvious to combine Sabat and Bauman because they were both in the same field and were both directed to RF distribution systems. (A335-36 at 54:14-18, 50:20-23.) The Sabat reference expressly discloses a digital distributed antenna system. (*See, e.g.*, A665 at Title (“Digital Distributed Antenna System”); Abstract (“A digital distributed antenna system...”); A672-73 at ¶0015 (“In a first embodiment of the present invention, a digital distributed wireless communication system is provided.”).) Further, there can be no dispute that Bauman discloses an improvement for a digital distributed antenna system. (*See, e.g.*, A678 at Title (“Distributed Digital Antenna System”); A687 at Summary of the Invention (“The embodiments of the present invention encompass a distributed digital antenna system that has a host unit for converting radio frequency signals to digital optical signals and digital optical signals to radio frequency signals.”).)

No reasonable juror could fail to find a motivation to combine these references because the references themselves expressly state the motivation. The *entire* disclosure of Bauman is about how to build a daisy-chain of remotes units in a digital distributed antenna system to reach “holes” or gaps in coverage without the need for more base stations, repeaters, or attenuation problems. (A687 at 1:27-47 (“...cellular systems can leave coverage ‘holes’ where the signal from the base stations cannot reach...”); Summary of the Invention (“The digital optical signals are transmitted over an optical medium to a plurality of remote units that are daisy-chained along the optical medium.”) (1:54-56) (emphasis added); A683, FIG. 1 (“daisy-chain arrangement” (2:59)); A684, FIG. 2 (“daisy-chain arrangement” (A688, 3:58-59)); A685, FIG. 3 (“remote units in the daisy-chain” (A688, 4:27)); A686, FIG. 4 (“in the daisy-chain” (A689, 5:3)); A689 at 5:31-32 (“In summary, the distributed antenna system provides multiple daisy-chained antennas...”)(emphasis added); A689 at Claim 1 (“remote units daisy-chained...”)).

Dali’s expert never actually opined that there was not a motivation to combine. He merely disputed whether Dr. Acampora’s provided one. (*See* A377-78 at 87:16-89:13.)

**C. Claims 6-21 are invalid for lack of written description and enablement**

For the reasons stated in CommScope’s motion for summary judgment, the asserted



claims of the '473 patent are invalid for lack of written description and enablement. (ECF 206-1 at 1-9.) In summary, the '473 patent specification does not disclose or enable (i) a host unit that creates or sends different subsets of carriers to different remote units, or (ii) remotes units that are able to selectively forward to another daisy-chained remote only a subset of the signals it received from the host unit. As to (i) the specification only discloses selective filters in the remote units to remove unused carriers signals from a larger set of signals received from the host unit, albeit based on instructions provided from the host unit. It is undisputed that for the claims to be found to have §112 support in the specification, the Court must decide the legal question: is the claim limitation that recites that the host unit is "configurable to transmit" different subsets of signals to different remotes supported by a host that sends the same set of signals to different remotes but with different instructions that the remotes use to generate different subsets from the common set that was sent by the host. (ECF 206-1 at 4-5.)

There is no dispute that in the system disclosed, the output at the remotes will be different, but that does not address the dispute. The issue is what is actually sent by the host to the remotes (i.e., before the remotes use selective filters to create subsets for transmission over their antennas). Care must be taken not to conflate a description in the specification of what a remote unit transmits from its antenna (downstream) or receives over its antenna (upstream), with what a host unit transmits (downstream) to the remote unit. Likewise, determining how many or which carrier signals a remote unit needs is not the same as actually generating and transmitting the needed subset of carriers. The specification discloses that the different subsets are not generated in the host, but rather the system relies on frequency selective up-converters in the remotes to generate and transmit the subsets. Therefore, claims 6 and 11 are not supported by the written description and are not enabled. The difference is seen by contrasting claim 1 with claims 6 and 11. Claim 1 describes how the remote units convert a portion of the downlink signals received at the remotes into a subset for transmission. By contrast, claims 6 and 11 require the host unit to transmit the different subsets to different remote units. (A622-23.)

The passages cited by the court, for example, in its decision denying summary judgment

do not disclose that the host unit generates and transmits the actual subsets of carriers as required by the disputed claims. (ECF 360 at 20-21.) Column 6:26-44, for example, refers to whether a first DAU is connected and software configured to transmit its signals to another DAU so as to make the signals of the first DAU available at the second DAU for transmission to the remotes connected to the second DAU. (A619.) It does not disclose that any particular DAU will actually generate and transmit different subsets to specific remote unit. Instead, the very next sentence and the remainder of that paragraph explicitly recites (at column 6, lines 44-65) that the software settings **in the remote units** are used to generate the desired subsets (based on instructions from the DAUs). (*Id.*) The specification at 7:30-36 does not supply the missing teaching either. (A620.) That passage is a description, again, of the selective DUCs in remote units and is not a description of a host that generates and transmits the different subsets.

Likewise, the passage at 6:63-65 does not disclose that the individual remotes are capable of selectively forwarding *to another daisy-chained remote unit* a subset of what it received from the host. The passage cited refers to selection at the remote for upconversion (hence “frequency selective DUCs” ) (digital upconverters)). (A619.) Upconversion is what happens in preparation for transmission over its wireless antenna. By contrast, over the cables, the system transports downconverted signals (see 6:10-17). (*Id.*) The software settings of the digital upconverters in the remote are expressly disclosed as being used to determine what appears at the output *of the antenna port* of the remote unit, not what a first remote will send over a cable to a second remote. (*See Id.* at 6:44-47.) Further, there would be no need for such a selection to be made because the second remote unit includes its own frequency selective digital upconverter DUC.

**IV. The Court should grant JMOL that the asserted claims of the ‘473 patent are not infringed**

**A. Claims 9, 14, 15 which require “capable of packetizing” are not infringed**

For at least two reasons, no reasonable juror could find infringement of claims 9, 14, and 15 of the ‘473 patent which all require that “the host unit is capable of packetizing each digital representation of an uplink signal.” The only testimony from Dali addressed the mechanism used for communication between the host and remote units. (*See* A301 at 67:2-3 (“...the frame



structure that is used for communication between the host unit and the remote units”), 67:17-18 (“So this frame structure is used for communication between the host and the remotes...”); A305 at 84 (“The system, indeed, is capable of packetizing its communications between the host unit and the remote unit through at least two mechanisms...”)).

Any and all communications generated by the host to be sent to the remote units are necessarily and by definition downlink signals, not uplink signals.<sup>9</sup> By contrast, the claim refers to the host unit packetizing uplink signals, not downlink signals. Dali’s expert’s opinion at trial cannot support a finding of infringement because he was describing the structures used by the host to communicate downstream to the remotes, not upstream to a signal source. Dali’s expert even admitted that the frame structure he was describing that would be sent from the host to the remotes was the downlink frame structure. (See A301 at 67:15-16 (“So here is the frame structure that is used in the downlink direction; so from the host unit to the remotes to ultimately going to your cell phone.”)). Mr. Doles, who designed and programmed the ION-E code confirmed that the frame structure referred to by Dr. Bims was the downlink frame structure. (A326 at 14:4-9 (“Q. I see 1.2.2 DL frame structure. Can you explain that title? A. Yes. This -- in the previous picture, there was a field called command and control. So this gives more detail on the command and control message that would be sent *from a CAN or a TEN to a UAP in the downlink direction.*”)(emphasis added).)<sup>10</sup> The argument and evidence presented by Dali at trial never identified how any communications created by the host for uplink signals satisfied the limitation regarding packetizing as required in claims 9, 14, and 15.

Second, to the extent Dali attempts to rely on fields provided within the well-known 10G frame structure as evidence of destination addresses, Dali’s argument is also legally insufficient for an additional reason. That there is an empty field available for a destination address, is not

<sup>9</sup> There is no dispute that the “uplink” direction is the direction from the remotes toward the host, and by contrast the “downlink” direction is the opposite direction from the host toward the remotes. (See, e.g., A308 at 94:16-21; A85 at 138:25-139:2; A88 at 152; A97 at 187:18.)

<sup>10</sup> Even Dali’s demonstrative used by Dr. Bims to support his testimony cited only to a screen capture from DTX-353 at COMDALI00360595, that included the heading “1.2.2 DL Frame Structure.” (SA36.) The acronym DL, stands for downlink, and Mr. Doles explained that this is a protocol for the host to communicate in the downlink direction. (A326 at 14:4-9.)



without more a sufficient showing that there is any functionality programmed into the system that makes the system *capable* of inserting destination information into that field. Without any actual programming that under at least some circumstance would ever insert a destination address into that field, the system cannot be considered to have the claimed *capability* of using a destination address. Dali did not identify any circumstance under which the system would ever be able to insert an address. If there is no set of circumstance that could ever induce the system to insert an address into the address field, the system cannot be considered to be “capable” of using an address there. That a system could have been programmed differently to include additional functionality cannot support a finding that the system already includes the capability to perform that function. Otherwise, every computer system is capable of every conceivable functionality because it could always be reprogrammed. Dali and Dr. Bims were unable to point to any evidence that the ION-E system included any functionality or code that could or would insert an address into those empty fields under any circumstance. Suggesting that the system could be reprogrammed to do that is not enough.

The author of the source code explained why CommScope does not use those address fields, and ran multiple tests on multiple examples of CommScope system to demonstrate that the fields are all empty (zeros). (A325-26 at 9:19-15:14.) Dali cannot create an issue of fact for the jury by complaining that the test did not cover every possible scenario where Dali does not point to any evidence or scenario where an address ever could or would be inserted by the system. Dali bears the burden of proof and has failed as a matter of law.

**B. All asserted claims of the ‘473 patent are not infringed because the UAPs cannot selectively forward subsets to daisy-chained UAPs**

During Inter Partes Review of the ‘473 patent, Dali asserted that the capability recited in independent claims 6 and 11 of the host unit to be able to send any specific radio resource to any specific remote unit required the host unit to have the ability to achieve this “even in a daisy-chain configuration.” (A755.) Dali asserted that the host unit could not achieve this if the remote units could not “selectively forward” subsets of radio resources to the next remote unit

along the daisy-chain. Dali insisted it insufficient for the first remote unit in a daisy-chain simply to forward every signal it receives to another remote unit in the daisy-chain, stating:

As discussed above with respect to claims 6 and 11, the claimed host unit is able to send a specific radio resource to a specific remote unit. ... In a combined Sabat and Wu system, however, every signal sent to a remote would be forwarded to every downstream remote. ... Specifically, ... Wu is unable to send a specific signal to any specific remote antenna. ... Instead, Wu's host units relay all received signals to all connected remote antennas. ... And in a cascade configuration, Wu's remote antennas simply forward all signals they receive to downstream remotes. ... Because the claimed host unit is able to send a specific signal to a specific remote unit, the remote units must be able to **selectively forward** those same radio resources to a daisy-chained remote unit. ... Because Wu's RTUs are unable to perform such **selective forwarding**, even if Sabat were to incorporate Wu's cascade configuration, the combination would not disclose all of the elements of claims 15, 17, and 21.

(A738 (emphases added).) Dali repeated the same argument at A755 (“[The prior art] discloses a ‘cascade configuration’ in which all channels received by one remote unit are cascaded to another remote unit, without any ability to selectively forward a subset of those channels as part of enabling a routing function in a host unit. . . . The claimed host units are able to send a specific radio resource to a specific remote unit, even in a daisy-chain configuration.”) (emphasis added). Based on this disclaimer in the prosecution history all asserted claims (and especially claims 15 and 21) must be construed to require that the remotes units be able to selectively forward to a subsequent, daisy-chained remote unit only a subset of the channels received from the host, i.e., must be able to *selectively* forward less than all received channels.

At trial, Dali's expert admitted that he had taken the position that this ability to selectively forward signals was a necessary functionality without which the claims would not be infringed. (A304-5 at 80:13-17, 81:24-82:6.)

And yet, at trial Dali presented no substantial evidence that the remote units in CommScope's system have this selective forwarding functionality. On the contrary, the evidence was that the remote units (called UAPs in CommScope's system) can only forward *all* channels to the next remote unit when daisy-chained. (A326 at 15:3-14.) That is, the first UAP merely forwards all the signals it receives from the CAN to the more distant UAP. This is the exact feature that Dali distinguished during IPR prosecution, and, therefore, the claims cannot reach CommScope's system as a matter of law. The only testimony provided by Dali was a



conclusory, unsupported statement by Dr. Bims. (A374 at 74:8-15.) Dr. Bims cites *nothing* to support his statement other than his own reports which are not evidence.

**C. All asserted claims of the ‘473 patent are not infringed because the transmission paths remain fixed until a switch is manually changed.**

During IPR, Dali distinguished the prior art and argued that the claim limitation relating to the host unit being “capable of” sending any downlink signal to any of the remote units did not cover systems where the transmission paths remain fixed until a switch is changed. (A801; A829.) Using italicized font, Dali repeatedly emphasized that its claims do not cover systems in which, once the switch is configured, the transmission paths remain “fixed” unless the switch is again changed to redistribute capacity.

Dali’s comments refer to ¶0046 of the Sabat reference, which discusses the embodiment of FIG. 6, and were intended to distinguish Sabat’s disclosure of a system that includes a switch used by an operator to redistribute capacity. Paragraph 0046 of Sabat (A674-75) describes how the operator can both set up and later redistribute capacity. By distinguishing such systems from this claim limitation, Dali asserted that the system itself is able to redistribute capacity by altering the transmission paths between the host and remote units, i.e., the transmission paths do not remain “fixed” until the user intervenes to reconfigure the switch.

The ‘473 patent specification, at column 2, lines 18-33, itself distinguishes systems that require the user to reconfigure the system. (A617 (criticizing system that must be “changed manually” because “impractical for an enterprise IT manager to monitor”).) The patent specification emphasizes automatically altering transmission paths, describing this feature as a “key function of the DAU”. (See A617 at 1:33-49; 2:3-33 (emphasis added).) The “Brief Summary of the Invention” (as well as the Abstract) discloses that the system provides, among other things, “enhancements” such as “automatic traffic load-balancing” and “autonomous/assisted commissioning,” and “automatic frequency selection.” (A618 at 3:64-4:4 (emphasis added).) The “Detailed Description” describes how these enhancements are achieved, for example, at 11:41-12:16 where it describes a DAU “embedded software control module” that performs “key functions” of the DAU. Specifically, the DAU Monitoring module and DAU



Management Control module execute algorithms that adaptively modify the system configuration when these modules detect a particular radio resource or carrier is overloaded (loaded by a percentage greater than a predetermined threshold). (A622 at 11:41-12:16.)

Most recently, in its Patent Owner Response to the IPR Petition, Dali again reiterated that “the considerable improvement” is the capability of the system to redistribute resources (A715):

The claimed host units receive a composite signal from a base station, extract individual radio resources from the composite, create useful subsets, and send those subsets to specific remote units for broadcast. ... At any time, the system can reconfigure subsets of radio resources or destinations of those subsets to address changes in demand throughout the wireless network. Id. This flexibility and configurability is a considerable improvement over conventional DAS.

Similarly, the claim limitation refers to a capability of the host unit (“wherein the host unit is capable of...”). Further, the ‘473 patent specification emphasizes the importance of the ability for the system to automatically redistribute capacity among the remote units, for example, based on the time of day or based on information about the usage of radio resources. (*See e.g.*, A617.) Given the emphasis placed on this feature by the specification, it is not surprising that Dali chose to distinguish its claims during IPR on this basis.

Therefore, based the public statements made by Dali to the PTAB quoted above, Dali has disclaimed coverage, and the claims cannot be asserted to cover systems in which the transmission paths remain fixed until the user intervenes to manually change the switch.<sup>11</sup>

The un rebutted testimony at trial was clear: without user intervention, the ION-E system is incapable of changing the transmission paths to alter which signals are sent to which remote

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<sup>11</sup> In addition, at trial, Dali stipulated that its own systems do not practice the invention of the ‘473 patent. (*See* A31.) This further underscores that the claimed invention requires the ability for the system to change its transmission paths without user intervention. Even prior to trial, Dali asserted that this dynamic allocation feature, although mentioned in its literature, had not yet been implemented into its products. (SA1019 at ¶54 (citing SA1586 at 116); A1006; SA996.) There is no dispute that Dali’s systems can be reconfigured by the user through a graphical user interface when the user decides to change the distribution of RF bands. SA1206-07 (“Web Based GUI”); SA1208 (Control Functions: “DL and UL Enable/Disable Setting – for each band”); SA1287 (“...provides an intuitive Graphical User Interface (GUI) for configuring and monitoring a Dali DAS.”); SA995 (“Monitoring, reconfiguring...can all be performed from the user interface...”) PTX144 at p. 2. What Dali’s systems lack is the ability to change transmission paths without user intervention, such as under automatic software control in response to changing conditions. Dali’s stipulation at trial, therefore, is further evidence that the claims require the ability to reconfigure the transmission paths without intervention by the user. In short, it is impossible for Dali to harmonize its stipulation at trial with its infringement theory.

units. (A324 at 8:10-9:14.) There is no factual dispute regarding the lack of such functionality in the ION-E system. The only dispute is a legal dispute as to whether the claims must be construed to be consistent with Dali's statement made during IPR. Therefore, CommScope is entitled to a finding of non-infringement as a matter of law.

**V. Alternatively, the Court should grant a new trial**

First, as to both patents, the jury verdict is against the "great weight of evidence." CommScope asks the Court to re-scrutinize the issues raised above as the standard is different for a new trial. Rousseau v. Teledyne Movable Offshore, Inc., 812 F.2d 971, 972 (5th Cir. 1987) ("It is a well-settled rule in this circuit that a verdict can be against the great weight of the evidence, and thus justify a new trial, even if there is substantial evidence to support it.") The evidence is not considered "in the light most favorable to" Dali, the Court may consider the credibility of the experts. Smith v. Transworld Drilling Co., 773 F.2d 610, 613 (5th Cir. 1985); 12 Moore's Fed. Prac.- Civil § 59.13 (2019) ("On a motion for new trial, on the other hand, the judge may make his or her own judgments as to credibility."). "When the trial is lengthy and complicated and involves subject matters outside the ordinary knowledge of jurors, the court should more closely scrutinize the verdict." 12 Moore's Fed. Prac.- Civil § 59.13 (2019).<sup>12</sup>

Second, as to the '521 patent, the jury verdict that the accused product infringes Claim 1 of the '521 patent is irreconcilable with the jury verdict Wright does not anticipate Claim 1. Wright discloses the same feature alleged to infringe in the accused product. (A350 at 110:17-112:4.) It is irreconcilable that the same feature meets the claim for infringement but does not meet the claim for anticipation. Mycogen Plant Sci., Inc. v. Monsanto Co., 243 F.3d 1316, 1324 (Fed. Cir. 2001) (recognizing a new trial may be appropriate if the verdict on anticipation and infringement conflicts with the rule "that which would literally infringe if later in time

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<sup>12</sup> The Court should consider: (1) Dali never harmonized its position that the accused product with a toggle switch meets the claim with its stipulation that Dali's own product with a toggle switch does not meet the claim (A292 at 32:7-11, A289-92 at 19:2-29:8); Dali's expert disclaimed considering the issue, and Dali called no witness to reconcile the issue (A367 at 45:19-46:9), (2) Dali's inventor testified the TI chip was "completely different" than the architecture in his patent (A339 at 66:22), (3) Dali's expert never tested (A279 at 50:12-14), and (4) Dali's expert was evasive when cross-examined on Bauder (A371-72 at 63:16-66:25).



anticipates if earlier than the date of invention”); Accentra Inc. v. Staples, Inc., No. CV 07-5862 ABC (RZx), 2013 U.S. Dist. LEXIS 200213, at \*30 (C.D. Cal. June 5, 2013) (recognizing infringement can be “irreconcilable” with the prior art not anticipating).

Third, as to the ‘473 patent, as discussed above, the weight of the evidence establishes that the CommScope host units do not have the capability to use destination addresses to packetize uplink signals and that the CommScope remote units cannot selectively forward subsets of signals to daisy-chained remotes. They merely forward everything they receive. Dali’s expert had never tested or inspected the accused products and had no evidence or analysis to support his bald statements to the contrary. Further, if Dali is to be permitted to advance a theory to distinguish the prior art that contradicts the Court’s claim construction order based on an alleged granularity limitation in the claim requiring the capability to “unpackage” or “take out one by one the contents of a signal” and then “distribute them individually” then CommScope is entitled to a new trial to present evidence that the accused systems do not infringe such a claim. CommScope cannot be muzzled by the Court’s claim construction order when presenting its non-infringement defense, while at the same time be forced to respond to attacks on its invalidity defense that are based on claim interpretations the Court has not adopted and, in fact, refused to adopt.<sup>13</sup>

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<sup>13</sup> CommScope requests the Court adopt the constructions previously requested for the ‘473 and ‘521 patents in CommScope’s motion for supplemental claim construction and at trial.



Dated: September 6, 2019

/s/Philip P. Caspers

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**Certificate of Service**

I, the undersigned, certify that, on September 6, 2019, I caused the foregoing document to be served on all counsel of record via ECF.

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